What is claimed is:

1. A method for preparing a film structure of a ferroelectric single crystal, which comprises the steps of: forming a layer of a material having a perovskite crystal structure on a substrate as an electrode layer, and growing a layer of a ferroelectric single crystal on the electrode material layer by a pulsed laser deposition (PLD) or metallorganic chemical vapor deposition (MOCVD) method.

2. The method of claim 1, wherein the grown ferroelectric single crystal layer has a thickness of 0.1 to 20 μm.

3. The method of claim 1, wherein the substrate is made of a silicon single crystal or a ferroelectric single crystal.

4. The method of claim 1, which further comprises polishing the single crystal substrate to form a single crystal substrate having an off-axed crystal structure

5. The method of claim 4, wherein the single crystal substrate has an off-axis angle of 0.1 to 10° with respect to the C axis.

6. The method of claim 1, wherein the electrode layer having the perovskite crystal structure is made of strontium ruthenate ($SrRuO_3$) or lanthanium nickelate($LaNiO_3$).

7. The method of claim 1, wherein the electrode layer has a specific resistance of 9×10^{-4} Ω cm or less.

8. The method of claim 1, which further comprises forming a metal oxide layer having a perovskite crystal structure on the substrate before the formation of the electrode layer.

9. The method of claim 8, wherein the metal oxide layer having the perovskite crystal structure is made of strontium titanate ($SrTiO_3$).

10. The method of claim 1 or 8, wherein the electrode or metal oxide layer is formed by a PLD or MOCVD method.

11. The method of claim 1, wherein the ferroelectric single crystal has a dielectric constant of 1,000 or greater as measured in a film form.

12. The method of claim 1, wherein the ferroelectric single crystal is $LiNbO_3$, $LiTaO_3$, $La_3Ga_5SiO_{14}$ or a material having the composition of formula (I):

x(A)y(B)z(C)-p(P)n(N) (I)

wherein,

(A) is $Pb(Mg_{1/3}Nb_{2/3})O_3$ or $Pb(Zn_{1/3}Nb_{2/3})O_3$,

(B) is $PbTiO_3$,

(C) is $LiTaO_3$,

(P) is a metal selected from the group consisting of Pt, Au, Ag, Pd and Rh,

(N) is an oxide of a metal selected from the group consisting of Ni, Co, Fe, Sr, Sc, Ru, Cu and Cd,

x is a number in the range of 0.65 to 0.98,

y is a number in the range of 0.01 to 0.34,

z is a number in the range of 0.01 to 0.1, and

p and n are each independently a number in the range of 0.01 to 5.

13. The method of claim 1, which further comprises forming a conductive metal layer on the surface of the ferroelectric single crystal layer opposite to the electrode layer having the perovskite crystal structure, by a sputtering or an electronic beam evaporation method.

14. The method of claim 1, which further comprises oxidizing the substrate by heat-treatment to form a thin oxide film of 1 μm or less on the substrate.

15. A ferroelectric single crystal film structure prepared by a method according to any one of claims 1 to 14.

16. An electric or electronic device comprising the ferroelectric single crystal film structure according to claim 15.